

a fourth polymer layer in contact with the second permeation barrier.

In this embodiment description, the combination of flexible sheet, light emitting layer, first electrode and second electrode constitute a device as recited above.

#### CLOSURE

While a preferred embodiment of the present invention has been shown and described, it will be apparent to those skilled in the art that many changes and modifications may be made without departing from the invention in its broader aspects. The appended claims are therefore intended to cover all such changes and modifications as fall within the true spirit and scope of the invention.

We claim:

1. A method of making a flexible environmental barrier for an organic light emitting device, comprising the steps of:

- (a) assembling a foundation by
  - (i) providing a substrate;
  - (ii) vacuum depositing a top by vacuum depositing a first polymer layer on the substrate, followed by vacuum depositing a first ceramic layer on the first polymer layer, then vacuum depositing a second polymer layer on the first ceramic layer;
- (b) constructing said organic light emitting device on the second polymer layer;
- (c) forming a cover by vacuum depositing a third polymer layer followed by vacuum depositing a second ceramic layer on the third polymer layer, then vacuum depositing a fourth polymer layer on the second ceramic layer; and
- (d) encapsulating said organic light emitting device by placing said cover over said organic light emitting device thereby forming said flexible environmental barrier encapsulating said organic light emitting device.

2. The method as recited in claim 1, wherein said assembling further comprises:

- placing at least one set of intermediate barrier between said substrate and said top, wherein each set is vacuum deposited by vacuum depositing (a) an intermediate polymer layer and vacuum depositing (b) an intermediate ceramic layer thereon.

3. The method as recited in claim 1, wherein said encapsulating further comprises:

- placing at least one set of intermediate barrier between said light emitting organic device and said top, by vacuum depositing (a) an intermediate polymer layer and vacuum depositing (b) an intermediate ceramic layer thereon.

4. The method as recited in claim 1, wherein said first ceramic layer is substantially transparent.

5. The method as recited in claim 1, wherein said second ceramic layer is substantially transparent.

6. The method as recited in claim 1, wherein said placing is by laminating said cover over said organic light emitting device onto said foundation.

7. The method as recited in claim 1, wherein said placing is simultaneous with said forming wherein said forming is directly upon said organic light emitting polymer.

8. The method as recited in claim 1, wherein said substrate is a flexible substrate.

9. The method as recited in claim 8, wherein said flexible substrate is removed from said foundation.

10. The method as recited in claim 1, wherein said first ceramic layer is selected from the group consisting of metal oxide, metal nitride, metal carbide, metal oxynitride and combinations thereof.

11. The method as recited in claim 10, wherein said metal oxide is selected from the group consisting of silica, alumina, titania, indium oxide, tin oxide, indium tin oxide and combinations thereof.

12. The method as recited in claim 10, wherein said metal nitride is selected from the group consisting of aluminum nitride, silicon nitride and combinations thereof.

13. The method as recited in claim 1, wherein said foundation includes a flexible substrate selected from the group consisting of polymer, metal, paper, fabric and combinations thereof.

14. The method as recited in claim 1, wherein said first polymer, second polymer, third polymer, fourth polymer, or combinations thereof is selected from the group consisting of acrylic, methacrylic, polyester or polyethyleneterephthalate (PET), polyethylene, polypropylene, and combinations thereof.

15. The method as recited in claim 1, wherein said polymer is selected from the group consisting of acrylic, methacrylic, polyester or polyethyleneterephthalate (PET), polyethylene, polypropylene, and combinations thereof.

16. The method as recited in claim 1, wherein said substrate is a rigid substrate that is removed from the foundation.

17. A method of making an environmental barrier for an organic light emitting device, comprising the steps of:

- (a) constructing a foundation by
  - (i) vacuum depositing at least one intermediate barrier on a substrate each intermediate barrier having (a) a first intermediate polymer layer with (b) a first intermediate ceramic layer thereon onto the substrate;
  - (ii) vacuum depositing a top of a first polymer layer on the substrate, a first ceramic layer on the first polymer layer, and a second top polymer layer on the first ceramic layer;
- (b) constructing said organic light emitting device on the second top polymer layer of the top; and
- (c) constructing a cover by
  - (i) vacuum depositing at least one intermediate barrier on said organic light emitting device, each intermediate barrier having (a) a second intermediate polymer layer with (b) a second intermediate ceramic layer thereon; and
  - (ii) vacuum depositing a first polymer layer on said at least one intermediate barrier with a second ceramic layer thereon and a second cover polymer layer on said second ceramic layer.

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